# IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS MARSHALL DIVISION

PROVEN NETWORKS, LLC.,	
Plaintiff,	Case No.
V.	JURY TRIAL DEMANDED
CISCO SYSTEMS, INC.,	
Defendant.	

# COMPLAINT FOR PATENT INFRINGEMENT AGAINST CISCO SYSTEMS, INC.

This is an action for patent infringement arising under the Patent Laws of the United States of America, 35 U.S.C. § 1 *et seq.*, in which Plaintiff Proven Networks, LLC ("Plaintiff" or "Proven Networks") makes the following allegations against Defendant Cisco Systems, Inc. ("Defendant"):

#### INTRODUCTION

- 1. This complaint arises from Defendant's unlawful infringement of the following United States patents owned by Proven Networks, each of which generally relate to data networking technology: United States Patent Nos. 8,018,852 ("'852 Patent"); 8,165,024 ("'024 Patent"); 7,508,757 ("'757 Patent"); and 7,450,507 ("'507 Patent") (collectively, the "Asserted Patents").
- 2. The management and optimization of data flow in networking systems is essential in modern society. Not only do computers, smartphones, and home automation devices operating via the Internet generate data traffic, but basic technology such as voice services and file transfers do as well. The enormous increase in multimedia content, such as videos, has greatly increased data traffic without proportional increases in data bandwidth. One problem caused by the large

consumption of high-bandwidth multimedia content is that more important data, including relatively low-bandwidth services such as voice services and data transfers (e.g., financial data), can suffer due to lack of bandwidth, resulting in dropped calls and incomplete file transfers. Optimization of data traffic in data networks has become even more important in order to navigate the bandwidth limitations.

- 3. The Asserted Patents address the general problem of network congestion and bandwidth limitations by providing specific techniques to optimize and manage data traffic. The Asserted Patents originated from telecommunications and wireless networking research from Lucent Technologies (now Alcatel-Lucent) in the early to mid 2000's. The inventors were keenly aware of the increase of high-bandwidth applications such as video, especially in wireless and mobile networks, and sought to develop technology to maintain acceptable performance for as many users, for as long as possible, under varying and adverse data traffic conditions.
- 4. For example, the '852 Patent teaches methods to augment routing decisions in networking equipment by using techniques based on "equal cost" paths to optimize data traffic. The '024 Patent teaches the use of a "deep packet inspection" device, especially in wireless networks, to examine the characteristics of data packets passing through the network in order to provide classification data to the data packets for downstream application-specific processing. The '757 Patent teaches the analysis of a forwarding table in connection with a bridge node in a networking system to provide the network with MAC table overflow protection and improve networking performance. The '507 Patent teaches a rate-limiting hierarchy method to control the bandwidth usage of different classifications of data traffic with provisions for exceeding the designated bandwidth by borrowing excess bandwidth from other classifications of data traffic under configurable conditions.

#### **PARTIES**

- 5. Plaintiff Proven Networks, LLC is a company organized under the laws of the State of California. Proven Networks is the sole owner by assignment of all right, title, and interest in each Asserted Patent.
- 6. On information and belief, Defendant Cisco Systems, Inc. is a corporation organized under the laws of the State of California, with its principal place of business at 170 West Tasman Drive, San Jose, California 95134.

#### **JURISDICTION AND VENUE**

- 7. This action arises under the patent laws of the United States, Title 35 of the United States Code. This Court has original subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).
- 8. This Court has personal jurisdiction over Defendant in this action because Defendant has committed acts within this District giving rise to this action, and has established minimum contacts with this forum such that the exercise of jurisdiction over Defendant would not offend traditional notions of fair play and substantial justice. Defendant, directly and through subsidiaries or intermediaries, has committed and continues to commit acts of infringement in this District by, among other things, making, using, importing, offering to sell, and selling products that infringe the Asserted Patents.
- 9. Venue is proper in this District under 28 U.S.C. § 1400(b). Defendant is registered to do business in Texas, and upon information and belief, Defendant has transacted business in this District and has committed acts of direct and indirect infringement in this District by, among other things, importing, offering to sell, and selling products that infringe the asserted patents. Defendant has a regular and established place of business in the District, including corporate

offices at 2200, 2250, and 2300 E President George Bush Highway, Richardson, Texas 75082, which is located in Collin County.<sup>1</sup>

## **COUNT I**

# **INFRINGEMENT OF U.S. PATENT NO. 8,018,852**

- 10. Plaintiff realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.
- 11. Plaintiff owns by assignment all rights, title, and interest in U.S. Patent No. 8,018,852, titled "Equal-Cost Source-Resolved Routing System and Method." The '852 Patent was duly and legally issued by the United States Patent and Trademark Office on September 13, 2011. A true and correct copy of the '852 Patent is attached as Exhibit 1.
- 12. On information and belief, Defendant makes, uses, offers for sale, sells, and/or imports certain products ("Accused Products"), such as the Cisco IOS XE and NX Internetworking Operating Systems and network routers and switches running IOS XE OS or NX OS, including Nexus 9000 Series, 4300, 4400, ASR 900 and ASR 1000, that directly infringe, literally and/or under the doctrine of equivalents, claims 1–18 of the '852 Patent.
- 13. Defendant also knowingly and intentionally induces infringement of claims 1–18 of the '852 Patent in violation of 35 U.S.C. § 271(b). At least through the filing and service of this Complaint, Defendant has knowledge of the '852 Patent and the infringing nature of the Accused Products. Despite this knowledge of the '852 Patent, Defendant continues to actively encourage and instruct its customers and end users (for example, through user manuals and online instruction materials on its website) to use the Accused Products in ways that directly infringe the '852 Patent.

<sup>&</sup>lt;sup>1</sup> See, e.g., <a href="https://www.cisco.com/c/en/us/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training-events/training

Defendant does so knowing and intending that its customers and end users will commit these infringing acts. Defendant also continues to make, use, offer for sale, sell, and/or import the Accused Products, despite its knowledge of the '852 Patent, thereby specifically intending for and inducing its customers to infringe the '852 Patent through the customers' normal and customary use of the Accused Products.

- 14. The Accused Products satisfy all claim limitations of claims 1–18 of the '852 Patent. A claim chart comparing independent claim 1 of the '852 Patent to the representative Accused Product, Cisco IOS XE, is attached as Exhibit 2.
- 15. By making, using, offering for sale, selling and/or importing into the United States the Accused Products, Defendant has injured Plaintiff and is liable for infringement of the '852 Patent pursuant to 35 U.S.C. § 271.
- 16. As a result of Defendant's infringement of the '852 Patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Defendant's infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendant, together with interest and costs as fixed by the Court.
- 17. Defendant's infringing activities have injured and will continue to injure Plaintiff unless and until this Court enters an injunction prohibiting further infringement of the '852 Patent, and, specifically, enjoining further manufacture, use, sale, importation, and/or offers for sale that come within the scope of the patent claims.

#### **COUNT II**

## **INFRINGEMENT OF U.S. PATENT NO. 8,165,024**

- 18. Plaintiff realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.
- 19. Plaintiff owns by assignment all rights, title, and interest in U.S. Patent No. 8,165,024, titled "Use of DPI to Extract and Forward Application Characteristics." The '024 Patent was duly and legally issued by the United States Patent and Trademark Office on April 24, 2012. A true and correct copy of the '024 Patent is attached as Exhibit 3.
- 20. On information and belief, Defendant makes, uses, offers for sale, sells, and/or imports certain products ("Accused Products"), such as Cisco IOS and network devices executing Cisco IOS, that directly infringe, literally and/or under the doctrine of equivalents, claims 1–25 of the '024 Patent.
- 21. Defendant also knowingly and intentionally induces infringement of claims 1–25 of the '024 Patent in violation of 35 U.S.C. § 271(b). At least through the filing and service of this Complaint, Defendant has knowledge of the '024 Patent and the infringing nature of the Accused Products. Despite this knowledge of the '024 Patent, Defendant continues to actively encourage and instruct its customers and end users (for example, through user manuals and online instruction materials on its website) to use the Accused Products in ways that directly infringe the '024 Patent. Defendant does so knowing and intending that its customers and end users will commit these infringing acts. Defendant also continues to make, use, offer for sale, sell, and/or import the Accused Products, despite its knowledge of the '024 Patent, thereby specifically intending for and inducing its customers to infringe the '024 Patent through the customers' normal and customary use of the Accused Products.

- 22. The Accused Products satisfy all claim limitations of claims 1–25 of the '024 Patent. A claim chart comparing independent claim 1 of the '024 Patent to the representative Accused Product, Cisco IOS, is attached as Exhibit 4.
- 23. By making, using, offering for sale, selling and/or importing into the United States the Accused Products, Defendant has injured Plaintiff and is liable for infringement of the '024 Patent pursuant to 35 U.S.C. § 271.
- 24. As a result of Defendant's infringement of the '024 Patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Defendant's infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendant, together with interest and costs as fixed by the Court.
- 25. Defendant's infringing activities have injured and will continue to injure Plaintiff unless and until this Court enters an injunction prohibiting further infringement of the '024 Patent, and, specifically, enjoining further manufacture, use, sale, importation, and/or offers for sale that come within the scope of the patent claims.

#### **COUNT III**

# **INFRINGEMENT OF U.S. PATENT NO. 7,508,757**

- 26. Plaintiff realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.
- 27. Plaintiff owns by assignment all rights, title, and interest in U.S. Patent No. 7,508,757 titled "Network with MAC Table Overflow Protection." The '757 Patent was duly and legally issued by the United States Patent and Trademark Office on March 24, 2009. A true and correct copy of the '757 Patent is attached as Exhibit 5.

- 28. On information and belief, Defendant makes, uses, offers for sale, sells, and/or imports certain products ("Accused Products"), such as Cisco IOS and network devices executing Cisco IOS, including Catalyst 2900 XL, 3500 XL, 2940, 2950, 2970, 3550, 3750, 4500/4000, 5000, and 6500/6000 Series, that directly infringe, literally and/or under the doctrine of equivalents, claims 1–29 of the '757 Patent.
- 29. Defendant also knowingly and intentionally induces infringement of claims 1–29 of the '757 Patent in violation of 35 U.S.C. § 271(b). At least through the filing and service of this Complaint, Defendant has knowledge of the '757 Patent and the infringing nature of the Accused Products. Despite this knowledge of the '757 Patent, Defendant continues to actively encourage and instruct its customers and end users (for example, through user manuals and online instruction materials on its website) to use the Accused Products in ways that directly infringe the '757 Patent. Defendant does so knowing and intending that its customers and end users will commit these infringing acts. Defendant also continues to make, use, offer for sale, sell, and/or import the Accused Products, despite its knowledge of the '757 Patent, thereby specifically intending for and inducing its customers to infringe the '757 Patent through the customers' normal and customary use of the Accused Products.
- 30. The Accused Products satisfy all claim limitations of claims 1–29 of the '757 Patent. A claim chart comparing independent claim 1 of the '757 Patent to the representative Accused Product, Cisco IOS, is attached as Exhibit 6.
- 31. By making, using, offering for sale, selling and/or importing into the United States the Accused Products, Defendant has injured Plaintiff and is liable for infringement of the '757 Patent pursuant to 35 U.S.C. § 271.

- 32. As a result of Defendant's infringement of the '757 Patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Defendant's infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendant, together with interest and costs as fixed by the Court.
- 33. Defendant's infringing activities have injured and will continue to injure Plaintiff unless and until this Court enters an injunction prohibiting further infringement of the '757 Patent, and, specifically, enjoining further manufacture, use, sale, importation, and/or offers for sale that come within the scope of the patent claims.

#### **COUNT IV**

### **INFRINGEMENT OF U.S. PATENT NO. 7,450,507**

- 34. Plaintiff realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.
- 35. Plaintiff owns by assignment all rights, title, and interest in U.S. Patent No. 7,450,507 titled "Hierarchal Rate-Limiting at a Network Node that Utilizes an Infinity Rate-Limit Check." The '507 Patent was duly and legally issued by the United States Patent and Trademark Office on November 11, 2008. A true and correct copy of the '507 Patent is attached as Exhibit 7.
- 36. On information and belief, Defendant makes, uses, offers for sale, sells, and/or imports certain products ("Accused Products"), such as Cisco network routers and switches, including the Cisco ASR 920 Series, ASR 9000 Series, NCS 540 Series, and NCS 5500 Series, that operate using Cisco IOS XR and IOS XE, that directly infringe, literally and/or under the doctrine of equivalents, claims 1–20 of the '507 Patent.
- 37. Defendant also knowingly and intentionally induces infringement of claims 1–20 of the '507 Patent in violation of 35 U.S.C. § 271(b). At least through the filing and service of this

Complaint, Defendant has knowledge of the '507 Patent and the infringing nature of the Accused Products. Despite this knowledge of the '507 Patent, Defendant continues to actively encourage and instruct its customers and end users (for example, through user manuals and online instruction materials on its website) to use the Accused Products in ways that directly infringe the '507 Patent. Defendant does so knowing and intending that its customers and end users will commit these infringing acts. Defendant also continues to make, use, offer for sale, sell, and/or import the Accused Products, despite its knowledge of the '507 Patent, thereby specifically intending for and inducing its customers to infringe the '507 Patent through the customers' normal and customary use of the Accused Products.

- 38. The Accused Products satisfy all claim limitations of claims 1–20 of the '507 Patent. A claim chart comparing independent claim 1 of the '507 Patent to the representative Accused Product, the Cisco ASR 9000 Series, is attached as Exhibit 8.
- 39. By making, using, offering for sale, selling and/or importing into the United States the Accused Products, Defendant has injured Plaintiff and is liable for infringement of the '507 Patent pursuant to 35 U.S.C. § 271.
- 40. As a result of Defendant's infringement of the '507 Patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Defendant's infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendant, together with interest and costs as fixed by the Court.
- 41. Defendant's infringing activities have injured and will continue to injure Plaintiff unless and until this Court enters an injunction prohibiting further infringement of the '507 Patent, and, specifically, enjoining further manufacture, use, sale, importation, and/or offers for sale that come within the scope of the patent claims.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests that this Court enter:

a. A judgment in favor of Plaintiff that Defendant has infringed, either literally and/or

under the doctrine of equivalents, the '852 Patent, the '024 Patent, '757 Patent, and the '507 Patent;

b. A permanent injunction prohibiting Defendant from further acts of infringement

of '852 Patent, the '024 Patent, '757 Patent, and the '507 Patent;

c. A judgment and order requiring Defendant to pay Plaintiff its damages, costs,

expenses, and pre-judgment and post-judgment interest for Defendant' infringement of the '852

Patent, the '024 Patent, '757 Patent, and the '507 Patent; and

d. A judgment and order requiring Defendant to provide an accounting and to pay

supplemental damages to Plaintiff, including without limitation, pre-judgment and post-judgment

interest;

e. A judgment and order finding that this is an exceptional case within the meaning

of 35 U.S.C. § 285 and awarding to Plaintiff its reasonable attorneys' fees against Defendant; and

f. Any and all other relief as the Court may deem appropriate and just under the

circumstances.

**DEMAND FOR JURY TRIAL** 

Plaintiff, under Rule 38 of the Federal Rules of Civil Procedure, requests a trial by jury of

any issues so triable by right.

Dated: March 6, 2020

Respectfully submitted,

/s/ Reza Mirzaie

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